Complete Summary

GUIDELINE TITLE

Guideline for the management of postoperative nausea and vomiting.

BIBLIOGRAPHIC SOURCE(S)

McCracken G, Houston P, Lefebvre G, Society of Obstetricians and Gynecologists of Canada. Guideline for the management of postoperative nausea and vomiting. J Obstet Gynaecol Can 2008 Jul;30(7):600-7. [75 references] PubMed

GUIDELINE STATUS

This is the current release of the guideline.

COMPLETE SUMMARY CONTENT

SCOPE

DISEASE/CONDITION(S)

Postoperative nausea and vomiting (nausea and/or vomiting occurring within 24 hours after surgery)

GUIDELINE CATEGORY

Management
Prevention
Risk Assessment
Treatment

CLINICAL SPECIALTY

Anesthesiology
Gastroenterology
Internal Medicine
Obstetrics and Gynecology
Pharmacology
Preventive Medicine
Surgery

INTENDED USERS

Physicians

GUIDELINE OBJECTIVE(S)

To provide recommendations for the management of postoperative nausea and vomiting (PONV), which may affect as many as 30% of patients

TARGET POPULATION

Women at risk for or who suffer from postoperative nausea and vomiting (PONV) following gynecologic surgery

INTERVENTIONS AND PRACTICES CONSIDERED

1. Recognition and reduction of risk factors for postoperative nausea and vomiting (PONV)
2. Minimizing perioperative use of opioids
3. Prophylactic use of antiemetics, including combination antiemetic therapy in high risk patients
4. Use of Acupoint electrical stimulation
5. Rescue antiemetic treatment for patients with PONV who did not receive prophylaxis
6. Patient education on management of PONV after discharge from ambulatory surgery

MAJOR OUTCOMES CONSIDERED

- Reduction in baseline risk factors for postoperative nausea and vomiting (PONV)
- Number needed to treat (NNT) for prevention of PONV
- Adverse effects of antiemetics

METHODOLOGY

METHODS USED TO COLLECT/SELECT EVIDENCE

Searches of Electronic Databases

DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE

Medline, PubMed, and the Cochrane Database were searched for articles published in English from 1995 to 2007.

NUMBER OF SOURCE DOCUMENTS

Not stated

METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE

Weighting According to a Rating Scheme (Scheme Given)

RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE

Quality of Evidence Assessment*

I: Evidence obtained from at least one properly designed randomized controlled trial.

II-1: Evidence obtained from well-designed controlled trials without randomization.

II-2: Evidence obtained from well-designed cohort (prospective or retrospective) or case-control studies, preferably from more than one center or research group.

II-3: Evidence obtained from comparisons between times or places with or without the intervention. Dramatic results from uncontrolled experiments (such as the results of treatment with penicillin in the 1940s) could also be included in this category.

III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees.

*Adapted from the Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care.

METHODS USED TO ANALYZE THE EVIDENCE

Review of Published Meta-Analyses
Systematic Review

DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE

Not stated

METHODS USED TO FORMULATE THE RECOMMENDATIONS

Expert Consensus

DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS

Not stated

RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS

Classification of Recommendations*

A. There is good evidence to recommend the clinical preventive action.

B. There is fair evidence to recommend the clinical preventive action.

C. The existing evidence is conflicting and does not allow to make a recommendation for or against use of the clinical preventive action; however, other factors may influence decision-making.

D. There is fair evidence to recommend against the clinical preventive action.

E. There is good evidence to recommend against the clinical preventive action.

L. There is insufficient evidence (in quantity or quality) to make a recommendation; however, other factors may influence decision-making.

*Adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

COST ANALYSIS

The guideline developers reviewed published cost analyses.

METHOD OF GUIDELINE VALIDATION

Internal Peer Review

DESCRIPTION OF METHOD OF GUIDELINE VALIDATION

This guideline was written in partnership with anesthesiologists and has been approved by Executive and Council of the Society of Obstetricians and Gynaecologists of Canada.

RECOMMENDATIONS

MAJOR RECOMMENDATIONS

The quality of evidence (**I-III**) and classification of recommendations (**A-E, L**) are defined at the end of the "Major Recommendations."

Management of Postoperative Nausea and Vomiting (PONV)

Risk Factors for PONV

1. Physicians should be aware of the risk factors associated with PONV, and the baseline risks should be reduced whenever possible. **(III-A)**

Optimization in the Preoperative Period

2. When the choice is available, patients should be advised that the risk of PONV decreases when regional rather than general anesthesia is administered. **(III-A)**
3. The perioperative use of opioids should be minimized. Surgeons should evaluate the risks/benefits of opioid administration in light of the increased risk of PONV. **(III-B)**

Pharmacological Prophylaxis

4. Prophylactic antiemetics should be administered to patients with moderate or high risk of developing PONV. **(II-1 A)**
5. In patients with a high risk of developing PONV, combination antiemetic therapy should be considered. **(III-B)**

Non-pharmacological Prophylaxis

6. Acupoint electrical stimulation may be used as an alternative or adjuvant therapy for prevention of PONV. **(II-1 A)**

Rescue Treatment for PONV

7. For patients with PONV who did not receive prophylaxis or in whom prophylaxis failed, antiemetic treatment should be administered as soon as feasible. **(III-A)**
8. When prophylaxis with one drug has failed, a repeat dose of this drug should not be initiated as a rescue therapy; instead, a drug from a different class of antiemetic drugs should be administered. **(III-A)**

Post-discharge Nausea and Vomiting

9. As patients who undergo surgery in surgical daycare units may have PONV after they are discharged, they should be given instructions for its management. **(III-B)**
10. Patients at high risk of developing PDNV should be provided with rescue treatment. **(III-B)**

Definitions:

Quality of Evidence Assessment*

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*The quality of evidence reported in these guidelines has been adapted from the Evaluation of Evidence criteria described in the Canadian Task Force on Preventive Health Care

**Recommendations included in these guidelines have been adapted from the Classification of Recommendations criteria described in the Canadian Task Force on Preventive Health Care.

CLINICAL ALGORITHM(S)

An algorithm is provided in the original guideline document for management of postoperative nausea and vomiting.

EVIDENCE SUPPORTING THE RECOMMENDATIONS

TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of supporting evidence is identified and graded for each recommendation (see "Major Recommendations").

BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

POTENTIAL BENEFITS

- Optimize the prevention of and prophylaxis against postoperative nausea and vomiting (PONV) and the prompt treatment of women who suffer from PONV following gynecologic surgery
- Increased awareness of options for management should help minimize the effects of PONV

POTENTIAL HARMS

The use of promethazine and prochlorperazine has decreased because of their significant side effects: sedation, dizziness, and extrapyramidal symptoms (EPS).

Adverse Effects of Other Antiemetics

- Ondansetron, dolasetron, granisetron, tropisetron: headache, lightheadedness, elevated liver enzymes
- Dexamethasone: Vaginal itching or anal irritation with IV bolus
- Droperidol: sedation, dizziness, anxiety, hypotension, EPS
- Dimenhydrinate: sedation, dry mouth, blurred vision, dizziness, urinary retention
- Scopolamine: sedation, dry mouth, visual disturbances; central nervous system (CNS) effects in elderly patients, renal or hepatic impairment
- Metoclopramide: sedation, hypotension, EPS
- Aprepitant: headache, fatigue, dizziness, elevated liver enzymes

QUALIFYING STATEMENTS

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This document reflects emerging clinical and scientific advances as of the date issued and is subject to change. The information should not be construed as dictating an exclusive course of treatment or procedure to be followed. Local institutions can dictate amendments to these opinions. They should be well documented if modified at the local level. None of these contents may be reproduced in any form without prior written permission of the Society of Obstetricians and Gynaecologists of Canada (SOGC).

IMPLEMENTATION OF THE GUIDELINE

DESCRIPTION OF IMPLEMENTATION STRATEGY

An implementation strategy was not provided.

IMPLEMENTATION TOOLS

Clinical Algorithm

For information about availability, see the "Availability of Companion Documents" and "Patient Resources" fields below.

INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES

IOM CARE NEED

Getting Better
Staying Healthy

IOM DOMAIN

Effectiveness
Patient-centeredness

IDENTIFYING INFORMATION AND AVAILABILITY

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ADAPTATION

Not applicable: The guideline was not adapted from another source.

DATE RELEASED

2008 Jul

GUIDELINE DEVELOPER(S)

Society of Obstetricians and Gynaecologists of Canada - Medical Specialty Society

SOURCE(S) OF FUNDING

Society of Obstetricians and Gynaecologists of Canada

GUIDELINE COMMITTEE

Not stated

COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE

Principal Authors: Geoff McCracken, MB, BCh, Toronto ON; Patricia Houston, MD, Toronto ON; Guylaine Lefebvre, MD, Toronto ON

FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST

Not stated

GUIDELINE STATUS

This is the current release of the guideline.

GUIDELINE AVAILABILITY

Electronic copies: Available in Portable Document Format (PDF) from the Society of Obstetricians and Gynaecologists of Canada Web site.

Print copies: Available from the Society of Obstetricians and Gynaecologists of Canada, La société des obstétriciens et gynécologues du Canada (SOGC) 780 promenade Echo Drive Ottawa, ON K1S 5R7 (Canada); Phone: 1-800-561-2416

AVAILABILITY OF COMPANION DOCUMENTS

None available

PATIENT RESOURCES

None available

NGC STATUS

This NGC summary was completed by ECRI Institute on March 11, 2009. The information was verified by the guideline developer on March 25, 2009.

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